What is claimed is:

1. A projection system comprising:

a light source;

a polarization conversion system having an incidence plane through which light emitted from the light source enters, which transmits a first polarized beam from the incident light and reflects a second polarized beam toward the incidence plane and changes the polarization of the second polarized beam;

a reflection mirror which reflects the beam emitted from the incidence plane of the polarization conversion system and the light emitted from the light source toward the incidence plane;

a color separator which separates an incident beam according to color;

a scrolling unit including at least one lens cell, which converts a rotation of the lens cell into a rectilinear motion of an area of the lens cell through which light passes so that the incident beam is scrolled;

a light valve which processes a beam transmitted by the color separator and the scrolling unit according to an image signal and forms a color picture; and

a projection lens unit which magnifies the color picture formed by the light valve and projects the magnified color picture onto a screen.

2. The projection system of claim 1, wherein the polarization conversion system comprises:

a polarization beam splitter including a polarization filter which reflects the second polarized beam and transmits the first polarized beam;

a reflection member which reflects the second polarized beam reflected by the polarization filter toward the polarization filter such that the polarization filter reflects the second beam toward the incidence plane of the polarization convention system; and

a wavelength plate installed between the reflection mirror and the polarization beam splitter, which changes the polarization of a beam that passes through the wavelength plate.

3. The projection system of claim 1, wherein the polarization conversion system comprises:

a polarization beam splitter including first and second polarization filters, the first and second polarization filters transmitting the first polarized beams and reflecting the second polarized beams;

first and second reflection members which respectively reflect the second polarized beams reflected by the first and second polarization filters toward the first and second polarization filters such that the first and second polarization filters reflect the second beams toward the incidence plane of the polarization conversion system; and

a wavelength plate installed between the reflection mirror and the polarization beam splitter, which changes the polarization of a beam that passes through the wavelength plate.

4. The projection system of claim 1, wherein the polarization conversion system comprises:

a polarization beam splitter including first and second polarization filters, the first and second polarization filters transmitting the first polarized beams and the first polarization filter reflecting the second polarized beam toward the second polarization filter and the

second polarization filter reflecting the second polarized beam toward the first polarization filter; and

a wavelength plate located between the reflection mirror and the polarization beam splitter, which changes the polarization of a beam that passes through the wavelength plate.

5. The projection system of claim 2, wherein the wavelength plate is a 1/4 wavelength plate that covers the entire area of the incidence plane of the polarization conversion system.

6. The projection system of claim 3, wherein the wavelength plate is a 1/4 wavelength plate that covers the entire area of the incidence plane of the polarization conversion system.

7. The projection system of claim 4, wherein the wavelength plate is a 1/4 wavelength plate that covers the entire area of the incidence plane of the polarization conversion system.

8. The projection system of claim 2, wherein the wavelength plate is a 1/2 wavelength plate that covers half of the incidence plane of the polarization conversion system.

9. The projection system of claim 3, wherein the wavelength plate is a 1/2 wavelength plate that covers half of the incidence plane of the polarization conversion system.

10. The projection system of claim 4, wherein the wavelength plate is a 1/2 wavelength plate that covers half of the incidence plane of the polarization conversion system.

11. The projection system of claim 1, wherein the polarization conversion system comprises:

a polarization beam splitter which is located in one half of a region adjacent to an optical axis and includes a polarization filter which transmits the first polarized beam and reflects the second polarized beam;

a first reflection member which reflects the second polarized beam reflected by the polarization beam splitter toward the polarization filter such that the polarization filter reflects the second polarized beam toward the incidence plane of the polarization convention system; and

a wavelength plate installed between the reflection mirror and the polarization beam splitter, which changes the polarization of an incident beam.

12. The projection system of claim 11, wherein the wavelength plate is a 1 /4 wavelength plate.

13. The projection system of claim 1, wherein the reflection mirror is a parabolic reflection mirror.

14. The projection system of claim 1, wherein the color separator includes first, second, and third dichroic filters, which are disposed between the light source and the

scrolling unit at different angles and each reflects a beam of a color and transmits beams of all other colors.

15. The projection system of claim 1, wherein the color separator includes first, second, and third dichroic prisms, which are sequentially attached to one another between the light source and the scrolling unit, and the first, second, and third dichroic prisms respectively include first, second, and third dichroic filters, each of which reflects a beam of a color and transmits beams of all other colors.

16. The projection system of claim 1, wherein the color separator includes first, second, and third dichroic filters, which are disposed in parallel between the scrolling unit and the light valve and each reflects a beam of a color and transmits beams of all other colors.

17. The projection system of claim 16, further comprising a prism installed in front of the color separator.

18. The projection system of claim 1, wherein the scrolling unit includes a spiral lens disk on which at least one cylindrical lens cell is spirally arranged.

19. The projection system of claim 1, wherein the scrolling unit includes first and second spiral lens disks, which are disposed apart from each other and each includes at least one cylindrical lens cell that is spirally arranged, and a glass rod installed between the first and second spiral lens disks.

20. The projection system of claim 1, further comprising a focusing lens disposed between the light source and the scrolling unit, which focuses light emitted from the light source.

21. The projection system of claim 1, further comprising a spatial filter disposed between the light source and the scrolling unit, which controls a divergence angle of the light emitted from the light source.

22. The projection system of claim 1, further comprising a collimating lens disposed on a light path between the light source and the scrolling unit, which collimates incident light.

23. The projection system of claim 1, further comprising first and second cylindrical lenses which are respectively disposed in front of and behind the scrolling unit.

24. The projection system of claim 1, further comprising first and second fly-eye lens arrays which are sequentially disposed on a light path between the scrolling unit and the light valve.

25. The projection system of claim 24, further comprising a relay lens which is disposed on a light path between the second fly-eye lens array and the light valve.

26. The projection system of claim 1, further comprising a polarization beam splitter disposed on a light path between the scrolling unit and the light valve, which

transmits a first polarized beam from the incident beam and reflects a second polarized beam from the incident beam, wherein the projection lens unit magnifies a color picture that is formed by the light valve and reflected by the polarization beam splitter and projects the magnified color picture to the screen.

27. The projection system of claim 26, wherein the light valve is a reflective liquid crystal display.

28. The projection system of claim 26, wherein the polarization beam splitter includes a substrate and wire grids, which are formed on one surface of the substrate, and the polarization beam splitter is disposed such that the wire grids face the light valve.